

03050104-090**(Spears Creek)****General Description**

Watershed 03050104-090 is located in Kershaw and Richland Counties and consists primarily of *Spears Creek* and its tributaries. The watershed occupies 45,300 acres of the Sandhills region of South Carolina. The predominant soil types consist of an association of the Lakeland-Wagram-Chastain-Chewacla series. The erodibility of the soil (K) averages 0.28 and the slope of the terrain averages 7%, with a range of 0-25%. Land use/land cover in the watershed includes: 76.8% forested land, 7.5% forested wetland, 8.4% agricultural land, 1.9% scrub/shrub land, 4.5% urban land, 0.8% water, and 0.1% barren land.

Spears Creek originates near the Town of Elgin and flows past Fort Jackson U.S. Army Base before draining into the Wateree River. Spears Creek flows through several small lakes including an unnamed 85-acre lake before accepting the drainage of Sloan Branch, Kelly Creek (White Pond), Haig Creek, McCaskill Creek (Rununder Branch, Otterslide Branch), and Raglins Creek. Further downstream Madraw Branch and Moke Branch enter Spears Creek near its confluence with the Wateree River. There are a total of 82.5 stream miles and 391.4 acres of lake waters in this watershed, all classified FW.

Surface Water Quality

| <u>Station #</u> | <u>Type</u> | <u>Class</u> | <u>Description</u> |
|------------------|-------------|--------------|--|
| CW-154 | S/W/BIO | FW | KELLY CREEK AT S-28-367 2.9 MI SE OF ELGIN |
| CW-155 | P/W/BIO | FW | SPEARS CREEK AT SC 12 3.6 MI SE OF ELGIN |
| CW-166 | W/INT | FW | SPEARS CREEK AT US 601 |

Kelly Creek (CW-154) – Aquatic life uses are fully supported based on macroinvertebrate community data; however, there is a significant increasing trend in total phosphorus concentration. There is a significant increasing trend in pH. This is a blackwater system, characterized by naturally low pH conditions. Although pH excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. Recreational uses are partially supported due to fecal coliform bacteria excursions, which are compounded by a significant increasing trend in fecal coliform bacteria concentration.

Spears Creek – There are two SCDHEC monitoring sites along Spears Creek. There is a significant increasing trend in pH at both sites. This is a blackwater system, characterized by naturally low pH conditions. Although pH excursions occurred at both sites, they were typical of values seen in blackwater systems and were considered natural, not standards violations. At the upstream site (**CW-155**), aquatic life uses are fully supported based on macroinvertebrate community data; however, there is a significant increasing trend in five-day biochemical oxygen demand. Recreational uses are fully supported; however, there is a significant increasing trend in fecal coliform bacteria concentration. At the downstream site (**CW-166**), aquatic life uses are fully supported and significant decreasing trends in five-

day biochemical oxygen demand and turbidity suggest improving conditions for these parameters.
Recreational uses are not supported due to fecal coliform bacteria excursions.

NPDES Program

Active NPDES Facilities

| <i>RECEIVING STREAM FACILITY NAME PERMITTED FLOW @ PIPE (MGD)</i> | <i>NPDES# TYPE COMMENT</i> |
|---|------------------------------------|
| SPEARS CREEK TRIBUTARY KROGER CO./PONTIAC FOODS PIPE #: 001 FLOW: M/R | SCG250053 MINOR INDUSTRIAL |
| SLOAN BRANCH LOVELESS & LOVELESS, INC. PIPE #: 001 FLOW: M/R | SCG730047 MINOR INDUSTRIAL |

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

| <i>LANDFILL NAME FACILITY TYPE</i> | <i>PERMIT # STATUS</i> |
|---|--|
| SCREAMING EAGLE ROAD/CHAMBERS LANDFILL MUNICIPAL | 402400-1101 (DWP-126) ACTIVE |
| CLEMSON ROAD DUMP ----- | ----- CLOSED |
| SCREAMING EAGLE ROAD MUNICIPAL | DWP-028, DWP-106 CLOSED |
| CAROLINA CONTAINER NORTHEAST LANDFILL MUNICIPAL | 403323-1101 (DWP-134, IWP-226) CLOSED |
| CAROLINA CONTAINER NORTHEAST LANDFILL MUNICIPAL | 402434-1101 ACTIVE |
| LOVELESS & LOVELESS, INC. CONSTRUCTION | 282428-1201 ----- |
| PINE HILL C&D LANDFILL C&D | PERMIT PENDING ----- |
| TNT SANDS LLC & LT LANDFILL CONSTRUCTION | 402423-1702 ----- |

Land Application Sites

| <i>LAND APPLICATION FACILITY NAME</i> | <i>PERMIT # YPE</i> |
|--|-------------------------|
| INFILTRATION BASIN PALMETTO UTILITIES, INC. REG. WWTP | ND0068411 DOMESTIC |

TILE FIELD
HACIENDA MOBILE HOME ESTATES

ND0067598
DOMESTIC

Mining Activities

MINING COMPANY
MINE NAME

PERMIT #
MINERAL

CAROLINA CERAMICS, INC.
KOON CLAY MINE

0137-55
KAOLIN

UNIMIN CORP.
BLANEY PLANT

0089-55
SAND

TAYLOR CLAY PRODUCTS CO.
TAYLOR MINE

0830-55
KAOLIN

HANSON BRICK COLUMBIA
GADSON PIT

0409-55
KAOLIN

HANSON BRICK COLUMBIA
COLEMAN MINE

0185-79
KAOLIN

LOVELESS & LOVELESS, INC.
SCREAMING EAGLE ROAD PIT

0492-55
SAND

HARDAWAY CONCRETE COMPANY, INC.
NORTHEAST MINE

0507-79
SAND

CHAMBERS RICHLAND CO. LANDFILL, INC.
SCREAMING EAGLE ROAD MINE

0700-79
KAOLIN

TNT SAND
TNT SAND MINE

0898-79
SAND

MILDRED R. PORTER
PORTER'S PIT

1115-55
SAND; SAND/CLAY

Growth Potential

There is a moderate to high potential for residential, commercial, and industrial growth in this watershed, which contains a portion of the City of Columbia and portions of the Towns of Elgin and Pontiac. I-20 crosses the area, together with U.S. Hwy. 601 and U.S. Hwy. 1, and S.C. Hwy. 12. There are also several large and growing subdivisions, the Richland County Industrial Park, and a privately owned solid waste landfill to add to future growth in the area. Sewer is provided to this area through a regional system located in Kershaw County. Water service is available from the City of Columbia's water system.

Watershed Protection and Restoration

Total Maximum Daily Loads (TMDLs)

TMDL was developed by SCDHEC and approved by EPA for ***Kelly Creek*** water quality monitoring site CW-154 and ***Spears Creek*** site CW-166 to determine the maximum amount of fecal coliform bacteria they can receive from nonpoint sources and still meet water quality standards. The primary sources of fecal coliform to the streams were determined to be failed septic systems, cattle-in-stream, and runoff from pastureland. The TMDL states that a 65% reduction in fecal coliform loading at CW-154 and 61% reduction at CW-166 is necessary for the streams to meet the recreational use standard.

For more detailed information on TMDLs, please visit the SCDHEC's Bureau of Water homepage at <http://www.scdhec.gov/water> and click on "Watersheds and TMDLs" and then "TMDL Program".